

1638
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Page 1 of 5

AUG 06 2002

TECH CENTER 1600/2900



1600

RAW SEQUENCE LISTING

DATE: 07/29/2002

PATENT APPLICATION: US/09/709,457

TIME: 14:07:56

Input Set : A:\EP.txt

Output Set: N:\CRF3\07292002\I709457.raw

ENTERED

3 <110> APPLICANT: Scandinavian Biotechnology Research (ScanBi AB) AB, ORG. NO. 556577-
4 8445
6 <120> TITLE OF INVENTION: USE OF A CLASS OF ENZYMES AND THEIR ENCODING GENES TO
INCREASE THE
7 OIL CONTENT IN TRANSGENIC ORGANISMS
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/709,457
C--> 9 <141> CURRENT FILING DATE: 2002-11-13
W--> 0 <130> FILE REFERENCE:
9 <160> NUMBER OF SEQ ID NOS: 2
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13 <211> LENGTH: 1833
15 <212> TYPE: DNA
17 <213> ORGANISM: Saccharomyces cerevisiae
21 <400> SEQUENCE: 1
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25 tccatggagg ttctgccacg gtcgtctacc acgtcgtggg tggagccagt ggagtcgact 180
26 gaaggagtgg agtcgactga ggcggaacgt gtggcaggga agcaggagca ggaggaggag 240
27 tacctgtgg acgcccacat gcaaaagtac ctttcacacc tgaagagcaa gtctcggtcg 300
28 aggttccacc gaaaggatgc tagcaagtat gtgtcgtttt ttggggacgt gagttttgat 360
29 cctcgcccca cgctcctgga cagcgccatc aacgtgccct tccagacgac tttcaaagg 420
30 ccggtgctgg agaaacagct caaaaattta cagttgacaa agaccaagac caaggccacg 480
31 gtgaagacta cgggtgaagac tacggagaaa acggacaagg cagatgcccc cccaggagaa 540
32 aaactggagt cgaacttttc agggatctac gtgttcgcat ggatgttctt gggctggata 600
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38 tccgtggtgt ttgttatgaa gagccactcg tttgcctttt acaacgggta tctttgggac 960
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40 ccagagaccc gcgagattct gcaaaaaagt tgcgactttt gccttttcga attgaactac 1080
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59 <211> LENGTH: 610
60 <212> TYPE: PRT
61 <213> ORGANISM: Saccharomyces cerevisiae
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66 Arg Arg Leu Asn Ser Ala Glu Ala Asn Lys Arg His Ser Val Thr Tyr
67 20 25 30
69 Asp Asn Val Ile Leu Pro Gln Glu Ser Met Glu Val Ser Pro Arg Ser
70 35 40 45
72 Ser Thr Thr Ser Leu Val Glu Pro Val Glu Ser Thr Glu Gly Val Glu
73 50 55 60
75 Ser Thr Glu Ala Glu Arg Val Ala Gly Lys Gln Glu Gln Glu Glu Glu
76 65 70 75 80
78 Tyr Pro Val Asp Ala His Met Gln Lys Tyr Leu Ser His Leu Lys Ser
79 85 90 95
81 Lys Ser Arg Ser Arg Phe His Arg Lys Asp Ala Ser Lys Tyr Val Ser
82 100 105 110
84 Phe Phe Gly Asp Val Ser Phe Asp Pro Arg Pro Thr Leu Leu Asp Ser
85 115 120 125
87 Ala Ile Asn Val Pro Phe Gln Thr Thr Phe Lys Gly Pro Val Leu Glu
88 130 135 140
90 Lys Gln Leu Lys Asn Leu Gln Leu Thr Lys Thr Lys Thr Lys Ala Thr
91 145 150 155 160
93 Val Lys Thr Thr Val Lys Thr Thr Glu Lys Thr Asp Lys Ala Asp Ala
94 165 170 175
96 Pro Pro Gly Glu Lys Leu Glu Ser Asn Phe Ser Gly Ile Tyr Val Phe
97 180 185 190
99 Ala Trp Met Phe Leu Gly Trp Ile Ala Ile Arg Cys Cys Thr Asp Tyr
100 195 200 205
102 Tyr Ala Ser Tyr Gly Ser Ala Trp Asn Lys Leu Glu Ile Val Gln Tyr
103 210 215 220
105 Met Thr Thr Asp Leu Phe Thr Ile Ala Met Leu Asp Leu Ala Met Phe
106 225 230 235 240
108 Leu Cys Thr Phe Phe Val Val Phe Val His Trp Leu Val Lys Lys Arg
109 245 250 255
111 Ile Ile Asn Trp Lys Trp Thr Gly Phe Val Ala Val Ser Ile Phe Glu
112 260 265 270
114 Leu Ala Phe Ile Pro Val Thr Phe Pro Ile Tyr Val Tyr Tyr Phe Asp
115 275 280 285
117 Phe Asn Trp Val Thr Arg Ile Phe Leu Phe Leu His Ser Val Val Phe
118 290 295 300
120 Val Met Lys Ser His Ser Phe Ala Phe Tyr Asn Gly Tyr Leu Trp Asp
121 305 310 315 320
123 Ile Lys Gln Glu Leu Glu Tyr Ser Ser Lys Gln Leu Gln Lys Tyr Lys
124 325 330 335
126 Glu Ser Leu Ser Pro Glu Thr Arg Glu Ile Leu Gln Lys Ser Cys Asp

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127		340		345		350										
129	Phe	Cys	Leu	Phe	Glu	Leu	Asn	Tyr	Gln	Thr	Lys	Asp	Asn	Asp	Phe	Pro
130			355				360					365				
132	Asn	Asn	Ile	Ser	Cys	Ser	Asn	Phe	Phe	Met	Phe	Cys	Leu	Phe	Pro	Val
133		370					375					380				
135	Leu	Val	Tyr	Gln	Ile	Asn	Tyr	Pro	Arg	Thr	Ser	Arg	Ile	Arg	Trp	Arg
136	385					390					395				400	
138	Tyr	Val	Leu	Glu	Lys	Val	Cys	Ala	Ile	Ile	Gly	Thr	Ile	Phe	Leu	Met
139				405						410					415	
141	Met	Val	Thr	Ala	Gln	Phe	Phe	Met	His	Pro	Val	Ala	Met	Arg	Cys	Ile
142			420						425					430		
144	Gln	Phe	His	Asn	Thr	Pro	Thr	Phe	Gly	Gly	Trp	Ile	Pro	Ala	Thr	Gln
145			435					440					445			
147	Glu	Trp	Phe	His	Leu	Leu	Phe	Asp	Met	Ile	Pro	Gly	Phe	Thr	Val	Leu
148		450					455					460				
150	Tyr	Met	Leu	Thr	Phe	Tyr	Met	Ile	Trp	Asp	Ala	Leu	Leu	Asn	Cys	Val
151	465					470				475					480	
153	Ala	Glu	Leu	Thr	Arg	Phe	Ala	Asp	Arg	Tyr	Phe	Tyr	Gly	Asp	Trp	Trp
154				485					490					495		
156	Asn	Cys	Val	Ser	Phe	Glu	Glu	Phe	Ser	Arg	Ile	Trp	Asn	Val	Pro	Val
157			500						505					510		
159	His	Lys	Phe	Leu	Leu	Arg	His	Val	Tyr	His	Ser	Ser	Met	Gly	Ala	Leu
160			515					520					525			
162	His	Leu	Ser	Lys	Ser	Gln	Ala	Thr	Leu	Phe	Thr	Phe	Phe	Leu	Ser	Ala
163		530					535					540				
165	Val	Phe	His	Glu	Met	Ala	Met	Phe	Ala	Ile	Phe	Arg	Arg	Val	Arg	Gly
166	545					550					555				560	
168	Tyr	Leu	Phe	Met	Phe	Gln	Leu	Ser	Gln	Phe	Val	Trp	Thr	Ala	Leu	Ser
169				565					570					575		
171	Asn	Thr	Lys	Phe	Leu	Arg	Ala	Arg	Pro	Gln	Leu	Ser	Asn	Val	Val	Phe
172				580					585					590		
174	Ser	Phe	Gly	Val	Cys	Ser	Gly	Pro	Ser	Ile	Ile	Met	Thr	Leu	Tyr	Leu
175			595					600					605			
177	Thr	Leu														
178			610													

VERIFICATION SUMMARY

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DATE: 07/29/2002

TIME: 14:07:57

Input Set : A:\EP.txt

Output Set: N:\CRF3\07292002\I709457.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:0 M:201 W: Mandatory field data missing, <130> FILE REFERENCE

L:62 M:283 W: Missing Blank Line separator, <400> field identifier